THE RECOVERY KERNEL

How to Navigate the Recovery Kernel

For People Recovering from MDMA

MDMA, ecstasy, molly, and related pills and powders. A step-by-step route: what to read, in what order, and what outcome the Kernel projects if you follow it. Supervised therapeutic MDMA is a different context, addressed in Step 8.

> **HARM REDUCTION RESOURCE — NOT MEDICAL ADVICE. If someone who has taken MDMA is very hot, has stopped sweating, is confused, or has muscle rigidity: call 911 now.** Cool them (cooler area, ice packs at neck, armpits, and groin). Overheating is the primary acute cause of death. The other common one is water intoxication: severe headache, vomiting, confusion, or seizure in someone who has been drinking large amounts of water and not urinating. Call 911 and do not give more water. Too little and too much water can both kill: sip, do not gulp.
>
> **MDMA plus SSRIs, SNRIs, MAOIs, tramadol, or triptans can cause fatal serotonin syndrome** (agitation, confusion, racing heart, twitching or rigid muscles, high temperature). Call 911. Much of what is sold as MDMA contains other substances (PMA, fentanyl, methamphetamine, or synthetic psychedelics), so carry naloxone.
>
> After stopping, the serotonin dip can be severe and can surface a depression that was being masked. Crisis: call or text 988 · SAMHSA: 1-800-662-4357

1. Before you start

This is a route through the Recovery Kernel for people whose MDMA use has become a problem, and for the people supporting them. The Kernel calls this the only guide in the series where the substance's main gift was not stimulation, calm, or escape but love: the felt sense of open-hearted connection and the removal of social self-consciousness. That state was real neurochemistry, and it was borrowed rather than built. MDMA is primarily a serotonin drug (with oxytocin release and a secondary dopamine effect), so recovery is aimed at rebuilding serotonin and the capacity for connection. Six rules set the order of everything that follows.

- **Withdrawal is psychiatric, not medical.** There is no seizure-type withdrawal. The risk is a serotonin floor deep enough to look like clinical depression, so have a plan for it before you stop if depression is part of your history.
- **Serotonin is the target, not dopamine.** Treating this like stimulant recovery gives an incomplete rebuild. The stimulant supplement logic is secondary here.
- **Never mix serotonin-raising things.** 5-HTP with an SSRI, SNRI, MAOI, tramadol, or a triptan is a real danger, and so is any MDMA on top of those drugs.
- **The craving is for connection.** The strongest triggers are social situations where connection feels out of reach, not the sight of a pill. The interrupt has to address that need.
- **Know your CYP2D6.** If MDMA always hit harder or lasted longer than for others, you may clear it slowly, and your exposure and risk were higher than your dose history suggests.

- **Do not wait for test results to start.** The genome refines the plan (Main Book, Quick-Start Step 3; Supp. Ch. 5, Step 1b).

How chapters are cited. "Main Book" is the Recovery Kernel Main Book (Second Edition, Centurian). "Compendium" is the Complete Protocol Compendium. "Supp. Ch. N" is chapter N of the Supplemental Book. The core chapter is Chapter 14 (How to Recover from MDMA). Section numbers (§) refer to sections inside it.

If you are not ready to stop yet. The Kernel does not require abstinence before offering help. Its acute-safety points for people still using: test what you have with reagent kits and fentanyl test strips (or a drug-checking service), and never redose an unusually slow pill before testing (PMA is slower and far more dangerous); do not use with any serotonergic medication; watch for overheating and for over-drinking water; carry naloxone; and never use alone. Case 06 also names a much longer gap between uses as the harm-reduction floor.

A note on protocol numbers. Supplemental Chapter 14 cites Compendium protocols by number, and some numbers do not match the Compendium as printed. It calls Protocol 12 the "Sonic" protocol (printed: Hydration Science; the printed Sonic Architecture is Protocol 03), Protocol 05 "environmental redesign" (printed: Digital Detox), Protocol 04 a community protocol (printed: Meeting Alternatives), Protocol 17 "Sleep" (printed: The Nightly Restoration), Protocol 20 the identity protocol (printed: Mapping the Terrain), and Centurian Paper C-31 the long-game paper (printed: Apropos Therapy). It also sends genomic mapping to "Section 15 (Compendium)". This guide cites each protocol by its printed title. If a number and a title disagree, follow the title.

For MDMA, watch for redosing mid-session to recapture the opening rush as it fades — a second dose has less serotonin to work with and adds mainly risk, not the feeling being chased.

Redosing is not the only version of this. Watching peers in a treatment setting negotiate a relapse, getting confident advice from someone untrained in your specific situation, or noticing a prescriber treat a prescribed substance more casually than an illicit one can all trigger the same pattern: a felt doubt read as “the plan must be wrong,” answered by abandoning it. See **The Commandeering Map**, a companion to this series, for the fuller pattern, including how it can differ by genetic profile and what helps when practice-based resistance alone is not enough.

2. The route at a glance

Steps 0 and 1 come first. Steps 2 to 4 can run at the same time. Steps 5 to 9 overlap and are the work of the first two years. Step 10 is everything after. "P" means Compendium Protocol; "C" means Centurian Paper.

Step	When	What you do	Turn to
0	Day 0	Triage: current medications, depression and suicide risk, what you were really taking.	Supp. Ch. 14 §0, §3 Main Book, Quick-Start Step 1 Compendium P01
1	Days 0–14	Ride out the comedown and the serotonin floor. Do not use to end it.	Supp. Ch. 14 §1, §3 Compendium P01

Step	When	What you do	Turn to
2	Weeks 1–4	Read the Main Book in order.	Main Book: Who This Book Is For, Quick-Start, Part One (Ch. 1–5) Supp. Ch. 2, 3
3	Weeks 1–4	Order 30× whole-genome sequencing. CYP2D6 is the priority.	Supp. Ch. 5 Step 1 Supp. Ch. 14 §2 Compendium P06
4	Weeks 2–6	Resolve your profile. Work out what MDMA was giving you.	Supp. Ch. 5 Steps 2–3, 6 Supp. Ch. 14 §2
5	Day 1 to Month 6	Build the serotonin foundation: methylation first, then precursor, then protection.	Supp. Ch. 14 §4 Supp. Ch. 5 Phase One Compendium P07, P09, P17, P18
6	Weeks 1–12, then ongoing	The craving is for connection. Learn the triggers and the interrupt.	Supp. Ch. 14 §5 Compendium P05, P08, P20, P21
7	Months 1–6, then ongoing	Build the connection architecture: one-to-one, touch, shared movement, music, laughter, service, light.	Supp. Ch. 14 §6 C-28; Compendium P22, P19, P03
8	From week 1	Treat depression, social anxiety, and PTSD. Decide about therapeutic MDMA only with specialists.	Supp. Ch. 14 §3, §8 Supp. Ch. 39 Compendium P13
9	Weeks 1–8, then ongoing	Renegotiate the scene: what can be kept, what cannot, for now.	Supp. Ch. 14 §6 Compendium P05, P08, P04
10	Months 2–12, Year 1 to 10	Identity beyond the scene. Steward: review, transplant, guide others.	Supp. Ch. 42, 43, 44 Compendium C-28, P24, P25 Supp. Ch. 5 Step 6

3. The route, step by step

Step 0 — Triage (Day 0, before everything)

Three things to settle first. Medications: if you take an SSRI, SNRI, MAOI, tramadol, or a triptan, MDMA is dangerous, and 5-HTP is off the table without a physician. The Kernel adds that SSRIs blunt MDMA's effect, which can drive people to take more. Mood: for someone with a history of depression, or who used MDMA to feel emotionally normal, stopping can unmask severe depression, and the Kernel says to have a psychiatric plan in place before stopping. Contents: much of what is sold as MDMA is not, so your past experiences (including a bad comedown) may have reflected PMA, methamphetamine, fentanyl, or a synthetic psychedelic, and that is worth telling your clinician.

If you may still be intoxicated or someone near you is, the banner's emergency signs apply first.

Turn to: Supp. Ch. 14 §0 (the two acute kill mechanisms; adulterants; serotonin syndrome) and §3 (the depression emergency). Main Book, Quick-Start Boot Sequence, Step 1. Compendium Protocol 01, Emergency Triage, for an acute crisis state.

Step 1 — The comedown and the serotonin floor (Days 0–14)

The Kernel calls MDMA withdrawal not medically dangerous but "the serotonin floor is real." Days 1 to 3, the extended comedown (the "Tuesday blues"): depression, fatigue, anxiety, social withdrawal, emotional sensitivity, poor concentration, as the depleted serotonin takes 48 to 72 hours to resynthesize. This is a scheduled pharmacological consequence, not evidence that sober life is inadequate, and the trap is using MDMA to end it. Week 1, the floor: persistent low mood, flatness, possible depersonalization, poor memory and concentration. Start the methylation foundation, begin exercise immediately (BDNF supports repair), get morning sunlight, and have brief low-demand social contact, which activates oxytocin. Weeks 2 to 8: gradual improvement with big swings, and the recovery is not linear.

Timing of 5-HTP: the Kernel's protocol map says to begin it 2 to 3 days after the last MDMA use (with the cofactor B6 in place), while Case 06 says not within 24 hours. Both are conservative, and both exist because of serotonin syndrome risk, so follow your physician, not the shorter number. Never combine 5-HTP with serotonergic drugs.

Turn to: Supp. Ch. 14 §1 (the MDMA cycle; the Tuesday blues) and §3 (the withdrawal timeline). Supp. Ch. 2 Case 06. Compendium Protocol 01, Emergency Triage.

Step 2 — Read the Main Book (Weeks 1–4)

Read it in order once you are settled. If you are overwhelmed, the Quick-Start Boot Sequence is designed to be read on its own. Read "Who This Book Is — and Is Not — For" first: it names situations where the supplement protocols need medical modification, including active psychosis, pregnancy, and severe liver disease.

Read in this order: Who This Book Is For → Quick-Start Boot Sequence → Part One: Ch. 1 (Why Willpower Isn't Enough), Ch. 2 (MTHFR), Ch. 3 (COMT), Ch. 4 (CYP450, which covers CYP2D6), Ch. 5 (When Systems Collide) → Ch. 7 (Harm Reduction), only if you are still using → Part Two, the case files (Chapter 6). Ch. 8 (Oxytocin Protocol) is experimental and specialist-only. Ch. 9 (Epigenetic Playground) belongs to Steps 7 and 10. Appendix A (which includes the drug-interaction matrix) and Appendix B are reference.

Then add: Supp. Ch. 2 (Clarity · Restoration · Manning), which includes Case 06, the MDMA case, and sets your expectations. Supp. Ch. 3 (The Addict Virgin Problem) recalibrates timelines for a damaged system. Supp. Ch. 1 (Why They Left You There) is optional reading for the shame.

Step 3 — Get your DNA (Weeks 1–4)

The Kernel's recommended route is 30× whole-genome sequencing, which returns a VCF file, a one-time asset you keep. A consumer SNP array is an acceptable start. A clinical pharmacogenomic panel adds clinical-grade CYP calls. Homocysteine, B12, and RBC folate are functional markers you can recheck quarterly.

For MDMA, **CYP2D6** is the priority: it is MDMA's primary metabolizer, and the Kernel says poor metabolizers accumulate it to toxic levels at doses others tolerate, with higher serotonin syndrome, hyperthermia, and neurotoxicity risk. Next come **SLC6A4** (the serotonin transporter MDMA targets; short/short carriers get a bigger surge and a deeper depletion), **MTHFR** (serotonin synthesis is folate-dependent), **TPH2** (the rate-limiting enzyme), **COMT**, **HTR2A/HTR2B**, and **BDNF**. Until results arrive: did MDMA hit harder or last longer than for others; were your Tuesday blues worse than your friends'; did it fix a chronic social disconnection that predated it; did SSRIs never quite work?

> **Confirm what you are ordering.** Supp. Ch. 5 specifies 30× whole-genome sequencing with VCF output. "WGBS" more commonly names whole-genome bisulfite sequencing, a DNA-methylation assay that is not built to call variants such as MTHFR C677T. Ask the lab for a standard variant file (VCF).

Turn to: Supp. Ch. 5, Step 1. Supp. Ch. 14 §2 (the DNA testing panel for MDMA recovery; phenotyping without test results). Compendium Protocol 06, Phenotype Assessment. Main Book Ch. 2 and Ch. 3 self-assessments.

Step 4 — Resolve your profile (Weeks 2–6)

Write your profile down and carry key results on a card. The Kernel's question is what MDMA was actually giving you, because it says the answer is usually a real serotonin and social-bonding deficit that MDMA was temporarily filling.

If your result is…	What changes	Source
CYP2D6 poor or intermediate	MDMA accumulates: more intense and longer effects, higher serotonin syndrome, overheating, and neurotoxicity risk, so your true exposure is higher than your dose history. Also critical before any therapeutic MDMA, and for future prescriptions.	Supp. Ch. 14 §2, §8
SLC6A4 short/short	Reduced transporter expression: a larger MDMA surge and a deeper, longer depletion, more severe Tuesday blues, and a chronic social anxiety that MDMA solved. Serotonin rebuilding and social redesign are both essential.	Supp. Ch. 14 §2; Ch. 2 Case 06
MTHFR variants	A serotonin synthesis bottleneck that MDMA bypassed by forcing release. If SSRIs never worked well, upstream methylation may be why. 5-MTHF first, before a new SSRI trial.	Supp. Ch. 14 §§2, 3, 4.1; Main Book Ch. 2
TPH2 low-activity	Slower serotonin recovery, longer comedowns. 5-HTP bypasses the slow enzyme, which is why the Kernel prefers it over tryptophan here.	Supp. Ch. 14 §2, §4.2

If your result is...	What changes	Source
COMT Val/Val or Met/Met	Val/Val: MDMA's dopamine component mattered too, especially with stimulants or in chemsex, so the recovery also needs intensity. Met/Met: MDMA was mainly serotonergic anxiolysis and social ease.	Supp. Ch. 14 §2
HTR2A / HTR2B, BDNF Met	More sensitive 5-HT2A receptors mean more intense effects. 5-HT2B downregulation adds to emotional blunting. BDNF Met slows axonal repair, so exercise is critical.	Supp. Ch. 14 §2

Turn to: Supp. Ch. 5, Steps 2, 3, and 6 (gene systems, combined profiles, profile template). Supp. Ch. 14 §2. Main Book Ch. 5 and Appendix A.

Step 5 — Build the serotonin foundation (Day 1 to Month 6)

The Kernel's order matters. First the methylation foundation: 5-MTHF, methylcobalamin, active B6 (the cofactor without which 5-HTP cannot convert to serotonin), and magnesium. Then the precursor: 5-HTP or L-tryptophan, never both, started low and raised slowly, and never with serotonergic medication. Then protection: the Kernel's antioxidant stack (EGCG, alpha-lipoic acid, NAC, vitamins C and E, low-dose melatonin, CoQ10) is aimed at oxidative damage to serotonin terminals, and it says its evidence for neuroprotection comes largely from animal and research models. Then omega-3, inositol for social anxiety and receptor sensitivity, and a secondary dopamine layer after the serotonin stack is established. Sleep repair covers REM rebound and its intense dreams, which the Kernel calls healing. The dose tables are in the chapter below. Run every addition past a pharmacist and an interaction checker (Drugs.com or Medscape). The peptide layer in Supp. Ch. 14 §4.6 is labeled by the Kernel as needing physician discussion, so it is not a self-start step.

Turn to: Supp. Ch. 14 §4.1 (methylation), §4.2 (serotonin reconstruction, with the 5-HTP safety warning), §4.3 (the neuroprotection stack), §4.4 (dopamine, secondary), §4.5 (sleep), §4.6 (peptides, physician only). Supp. Ch. 5, Phase One. Main Book Ch. 2, §2.4–2.5. Compendium Protocol 07 (Neuroplasticity), Protocol 09 (The Gut-Brain Axis), Protocol 17 (The Nightly Restoration), Protocol 18 (Eating for Restoration), and Centurian Paper C-32 (The Insomnia Architecture).

Step 6 — The craving is for connection (Weeks 1–12, then ongoing)

The MDMA craving is not mainly for euphoria or energy. It is for a specific quality of connection: barriers between self and other dissolving, and genuine contact without self-consciousness. So the strongest triggers are social: events tied to MDMA (festival and club music and aesthetics), feeling disconnected or invisible in a room, specific songs and artists (which arrive as emotion before thought), contact from the using community, and the Tuesday-blues depression wave, when "I just want to feel normal again" points at the fastest known route. The Kernel notes a lonely-in-a-crowd craving points at a real unmet need, so the response has to meet it.

The 5-minute interrupt: name the specific craving; six cycles of 4-7-8 breathing; take your serotonin support (5-HTP if your physician has cleared it, and magnesium); make genuine contact with one person (a call or a meeting, not the group chat) with a real exchange and eye contact; do a natural serotonin-activating activity; assess whether the setting is appropriate for early recovery; and document trigger, state, intensity, action, and outcome. Pre-plan high-risk events: bring a sober support person, plan an exit, and limit time in the highest-intensity cue settings early on. Build a recovery playlist of music that is not MDMA-associated.

Turn to: Supp. Ch. 14 §5 (the craving is for the connection; the trigger map; the 5-minute interrupt). Compendium Protocol 05 (Digital Detox), Protocol 08 (Social Environment), Protocol 20 (Mapping the Terrain), Protocol 21 (Reading the Collapse), Protocol 03 (Sonic Architecture).

Step 7 — Build the connection architecture (Months 1–6, then ongoing)

The Kernel says this is the central project of MDMA recovery and the one standard treatment most underaddresses. It is not therapy homework. It is the biological reconstruction of the serotonin and oxytocin systems through their natural pathways, and it has to be deliberate, daily, and prioritized. Its practices: genuine deep conversation with one person at a time, with the mask lowered gradually; physical safe touch (hugs, pets, massage, and physical community activities); communal movement with other people (dance, group exercise, martial arts, team sports), since synchronized movement is one of the most reliable natural sources of the bonding chemistry; live music and active listening, which the Kernel says is still profound sober, different and not less; scheduled laughter and play; service, which it says becomes for many people the most reliable source of open-hearted presence; and 20 or more minutes of direct morning sunlight, which it treats as a biological intervention for the serotonin-producing raphe nuclei.

Turn to: Supp. Ch. 14 §6 (the natural serotonin and oxytocin architecture). Centurian Paper C-28 (The Recast). Compendium Protocol 22 (The Family Field), Protocol 19 (The Body in Motion), Protocol 03 (Sonic Architecture), Protocol 29 (The Peacetime Paradox).

Step 8 — Depression, social anxiety, PTSD, and therapeutic MDMA (from week 1)

The person whose MDMA use was managing depression has not had it treated. It was masked. Assess 5-MTHF first if MTHFR variants are likely, and exercise immediately and daily. If depression is still clinical at 4 to 6 weeks after stopping with the foundation in place, get a psychiatric evaluation, and let the MTHFR assessment come before an SSRI trial. If an SSRI is prescribed, do not use MDMA. Social anxiety that MDMA was managing needs its own treatment: the Kernel names buspirone (a non-addictive option) and SSRIs with CBT. PTSD needs trauma-specific treatment (EMDR, CPT, or Prolonged Exposure). If ADHD was part of it, the Kernel names non-stimulant treatment. Ask for a neuropsychological assessment if memory or executive-function problems persist at 3 months or more, a cardiac assessment if you had overheating or cardiac symptoms, and multi-site STI testing if you used in sexual settings.

> **Therapeutic MDMA: the status is changing.** The Kernel describes MDMA-assisted psychotherapy for PTSD as approved in Australia and moving through US regulatory review. My check of current sources (September 2026): Australia has allowed authorised prescribing for PTSD since July 2023; in the US the FDA declined approval in August 2024 and asked for more evidence, and a resubmission was reported in August 2026; US access is otherwise limited to clinical trials and expanded access. Verify current status before relying on any of it.
>
> The Kernel's position on using it if PTSD drove your use: this is a decision for an addiction medicine specialist and a psychiatrist working together, with full disclosure of your MDMA history to the therapy team, and with your CYP2D6 status known, since poor metabolizers are at higher risk at any dose. It calls the person most likely to benefit and the person most likely to be harmed "the same person," and says this is neither a reason to exclude it nor to pursue it without full clinical oversight.

Turn to: Supp. Ch. 14 §3 (the depression emergency) and §8 (medical priorities; the therapeutic MDMA question; medications for co-occurring conditions). Supp. Ch. 39 (Complex Trauma and the Substance Connection). Compendium Protocol 13 (The Pharma Trap).

Step 9 — Renegotiate the scene (Weeks 1–8, then ongoing)

The festival and rave community was not just a delivery mechanism. It had shared values (peace, love, unity, respect), music that moved people, and real relationships. Some of the closeness was chemical and would not have felt the same sober, and some of it was real. The Kernel says recovery does not require leaving the culture entirely, but it requires renegotiating your relationship to it. What can often be kept: the music in sober settings, friendships on sober terms, the values ("PLUR is not a drug value, it is a human value"), the aesthetic, and the sense of belonging. What needs fundamental renegotiation: any space where MDMA use is active and expected, any friend group whose shared currency is the substance, and any relationship that exists only in the context of use. Some settings are too high-risk in the first six months whatever your intentions. That distance is temporary, not exile.

Turn to: Supp. Ch. 14 §6 (rebuilding the festival community: what was real, what can be kept). Compendium Protocol 05 (Digital Detox), Protocol 08 (Social Environment), Protocol 04 (Meeting Alternatives).

Step 10 — Identity and the long game (Months 2–12, Year 1 to Year 10)

The identity question the Kernel names: is the open, connected, loving person you were on MDMA your real self or the drug? Its answer is both. The drug facilitated something real, and recovery is building direct access to it. Full Inventory is a structured 180-day plan, and Amends to Self puts the person who lived through it first. The Kernel's picture of months 12 to 24: a rebuilt serotonin system, a real community of connection, and a practiced capacity for authentic presence, with connection that is "built, not borrowed." Navigation after the first two years shifts from repair to stewardship. Section 4 shows how. Standing tools: Supp. Ch. 44 (The Transplant: redirect the devotion and daily structure the pattern required into a practice that grows). Supp. Ch. 6 (Stay Non-Addicted) and Compendium Protocol 02 (Behavioral Addictions, with its "Mask Change" caution on addiction transfer). Compendium Protocol 13 (The Pharma Trap). Supp. Ch. 38. Supp. Ch. 5, Step 6 (a weekly AI check-in profile, a reasoning tool and never a provider).

Turn to: Supp. Ch. 42 (Full Inventory). Supp. Ch. 43 (Amends to Self). Centurian Paper C-28 (The Recast). Compendium Protocol 24 (Returning to Work), Protocol 25 (The Open Door), Protocol 22 (The Family Field), Protocol 16 (The Isolation Spiral). Supp. Ch. 51 (Family & Support Network Guide): give it to the people who love you.

4. How navigation changes at Years 3, 5, and 10

Shading shows how much attention each track needs. Darkest is primary focus, then active, then maintenance. White cells with gray text are standing safeguards: low effort, never dropped. Numbers in brackets refer to the shifts listed below the table.

Track	Months 0–24 (foundation)	Year 3 (consolidate)	Year 5 (build out)	Year 10 (steward)
Safety and medical	Plan for the dip; no serotonin mixing	Medications reviewed; SSRI caution [1]	Mood plan, clinician-led	Serotonergic meds: never with MDMA [7]
Biology and genome	CYP2D6 first; SLC6A4, MTHFR	Retest labs; step stack to upkeep [2]	Prescriber card: CYP2D6, SLC6A4	Re-check with new meds and age
Scene and cues	Scene distance; recovery playlist	Music returns in sober contexts	Triggers shift: loneliness [5]	Same plan, rehearsed
Serotonin and sleep	Morning light; sleep, serotonin	Serotonin system largely restored [3]	Light, sleep, mood habits	Stress plan, sleep habits
Connection architecture	One-to-one time; touch, movement	Sober community built [4]	Community held; weekly rhythm	Depth kept; circle renewed
Identity and inventory	Identity beyond the scene	Inventory; amends to self	Identity beyond the using years	Annual re-inventory
Meaning and Manning	Purpose: first seeds only	Transplant; return to work	Manning: service, peer support [6]	Mentor or run a group

The seven shifts

1. **Year 3, medications are reviewed, with SSRI caution.** If you were started on an antidepressant during recovery, the Kernel's rules still apply: SSRIs and MDMA do not mix, and 5-HTP does not mix with serotonergic drugs (Supp. Ch. 14 §4.2, §8). Review each medication with the standard in Compendium Protocol 13: is it still needed, and what marks readiness to stop, with your prescriber?
2. **Year 3, the stack moves from building to upkeep.** The Kernel says SERT density recovers over 12 to 24 months of abstinence, with substantial but not always complete recovery (Supp. Ch. 14 §3). Retest labs (Supp. Ch. 5 Step 1a) and step down toward maintenance. The Trinity chapter says supplements are taken until stable, then tapered and resumed if the system destabilizes; Main Book Ch. 2 treats MTHFR support as maintenance, not cure. Step down to maintenance, not to zero.
3. **Year 3, the serotonin system is largely restored.** The Kernel describes months 6 to 24 as neurotoxic recovery, with most heavy users' emotional blunting resolving by 12 to 24 months (Supp. Ch. 14 §3). Ordinary joy, social ease, and emotional range should be the baseline by now.
4. **Year 3, the sober community is built.** The Kernel calls the connection architecture the central project and says the 12 to 24 month picture is a real

community and a practiced capacity for authentic presence (Supp. Ch. 14 §7). By year 3 it should be a stable weekly rhythm, not a rescue effort.

5. **Year 5, triggers shift to loneliness.** The craving is for connection, and the strongest triggers are moments when connection feels out of reach (Supp. Ch. 14 §5). As scene and music cues fade, what remains is loneliness, life transitions, and losses. Keep the one-person-contact interrupt and Protocol 21 ready. This shift is extrapolation.
6. **Year 5, Manning.** This is the Trinity's third stage (Supp. Ch. 2). The Kernel says service becomes for many people the most reliable source of the open-hearted presence they were seeking (Supp. Ch. 14 §6), so peer support and service peak here.
7. **Year 10, serotonergic medications and MDMA never mix, and any lapse is dangerous.** Overheating, water intoxication, adulterants, and serotonin syndrome are the Kernel's named hazards, and SSRIs, MAOIs, tramadol, and triptans raise the danger (Supp. Ch. 14 §0). Any therapeutic MDMA decision stays with specialists and depends on CYP2D6.

What is sourced and what is extrapolated. *Shifts 3, 4, 6, and 7 rest directly on Kernel text. Shifts 1 and 2 apply Kernel rules at a timing chosen for this guide. Shift 5 is an extrapolation. The Kernel's detailed MDMA timeline ends at 24 months, and its WHEN Correlator puts deep-root reversal at 2 to 5 or more years for heavy long-term use. Years 3, 5, and 10 are therefore projections.*

5. What outcome to expect

The short version

If you do the route above, with the medication and mood check first, the comedown ridden out, the serotonin foundation built in order, the craving met as a need for connection, the connection architecture built deliberately, and the scene renegotiated, this is the outcome the Kernel projects:

- **You get through the extended comedown and the serotonin floor** without using to end it, and with a plan for depression if it surfaces.
- **Weeks 2 to 8 bring gradual, uneven improvement.** Mood lifts, emotional range widens, sleep normalizes, and connection becomes more accessible.
- **By months 1 to 6, recreational-pattern users are substantially recovered** in mood, social capacity, and emotional warmth. For heavy long-term users, recovery is ongoing and measurable, with some residual blunting.
- **By months 6 to 24, imaging shows substantial recovery of serotonin transporter density** (12 to 24 months of abstinence), though not always complete. The Kernel says the subjective improvement comes earlier than the biological repair.
- **By years 3 to 5 the work is maintenance and building. By year 10 you are a steward,** carrying a small set of standing safeguards.

The Kernel does not promise zero risk or that a return to use cannot happen. It states that the depression that surfaces is a condition needing treatment, that recovery is not linear, and that serotonergic medications make MDMA dangerous.

Milestones, in order

Milestone	When	Expected outcome	Source	Basis
Extended comedown	Days 1–3	Depression, fatigue, anxiety, social withdrawal, emotional sensitivity. Serotonin takes 48–72 hours to resynthesize. Do not use to end it.	Supp. Ch. 14 §§1, 3	Clinical timeline
The serotonin floor	Week 1	Persistent low mood, flatness, possible depersonalization, poor memory and concentration. Start the foundation, exercise, and sunlight.	Supp. Ch. 14 §3	Clinical timeline
Gradual improvement	Weeks 2–8	Mood improves with big swings. Emotional range widens. Sleep normalizes. Connection becomes more accessible.	Supp. Ch. 14 §3	Kernel projection
Depression checkpoint	Weeks 4–6	If depression is still clinical with the full foundation in place, get a psychiatric evaluation, after the MTHFR assessment.	Supp. Ch. 14 §3, §7, §8	Kernel projection
Substantial recovery	Months 1–6	For recreational patterns, mood, social capacity, and warmth substantially recovered. Heavy users have ongoing measurable recovery.	Supp. Ch. 14 §3	Kernel projection
Neurotoxic recovery	Months 6–24	SERT density recovers over 12–24 months of abstinence: substantial but not always complete. Residual blunting resolves.	Supp. Ch. 14 §§1, 3	Kernel projection
Deep-root reversal	2–5+ years (heavy long-term use)	Prefrontal recovery and epigenetic reversal continue. Some changes may be partial.	Supp. Ch. 36	Kernel projection
Steward phase	Years 3–10	Repair tracks at maintenance. Community and service. Standing safeguards.	Section 4 of this guide	Extrapolated

The Kernel's own 12-month numbers for one MDMA profile

Supplemental Chapter 2 gives projected outcomes at 12 months for an adherent protocol compared with standard treatment. Case 06 is a 22-year-old from festival culture and the gay community who has used MDMA two to three times a month for three years. His comedowns ("Suicide Tuesday") are getting darker and he cannot feel joy in ordinary life without it. His profile is SLC6A4 short/short, MTHFR heterozygous, and possible low-activity MAOA. The Kernel says the SLC6A4 s/s profile is the most important factor and that recovery must address the connection need through both biological support and social redesign.

Case	Measure	Kernel protocol	Standard treatment
Case 06	Cessation or significant reduction at 12 months	68%	35%
Case 06	Serotonin function restoration (mood, ordinary pleasure) at Month 6	70%	25%
Case 06	Elimination of severe crashes ("Suicide Tuesday")	78%	20%
Case 06	Social connection need met through non-MDMA pathways	65%	30%

How to read these numbers. *The Kernel describes them as archetype projections, "probability estimates" for an adherent, biologically confirmed 12-month protocol, drawn from cited studies. They are not guarantees, and the Main Book states that it is not reporting a randomized controlled trial of the Kernel itself. Case 06 counts "cessation or significant reduction," so it is not all abstinence. The Kernel also notes standard MDMA-use-disorder outcome data is limited, with harm-reduction approaches showing 35 to 45 percent significant reduction.*

What changes the outcome

- **Using MDMA to end the comedown.** The Kernel names this the primary trap that drives the cycle.
- **Mixing serotonergic things:** MDMA with SSRIs, SNRIs, MAOIs, tramadol, or triptans, or 5-HTP with any of them.
- **Skipping a plan for depression** if it is part of your history. Stopping can surface it.
- **Treating it like stimulant recovery.** Serotonin is the primary target, and tyrosine is secondary.
- **Ignoring CYP2D6.** Poor metabolizers face higher risk at any dose, including any future therapeutic session.
- **Staying in the highest-cue settings early:** the events, the music, and the contacts.
- **Building only a supplement stack.** The Kernel says connection practices are the central project, and that a stack alone leaves the deficit.
- **Untreated social anxiety, PTSD, or depression** that MDMA was managing.
- **A lapse.** The Kernel treats it as information, not judgment (Protocol 21). It is also a medical-risk event: overheating, water intoxication, unknown contents, and drug interactions, so test, keep naloxone, do not use alone, and call 911 for emergency signs.

How to read the evidence behind the outcomes

The Main Book marks claims with an Evidence Tier: Established, Probable, Emerging, Author/System Experience, and Controversial or Mixed. This guide's reading: the acute dangers (overheating, water intoxication, adulterants, and serotonin syndrome with serotonergic drugs) are well established. The Kernel says imaging shows reduced serotonin transporter binding in heavy users with recovery over 12 to 24 months; findings vary by dose and pattern, and recreational-level evidence is less clear. It says its antioxidant neuroprotection claims (EGCG, alpha-lipoic acid, melatonin) rest largely on animal and research models. The 5-HTP protocol, the "5-MTHF is transformative" claims, the peptide layer, the percentage projections, and the years 3 to 10 trajectory sit lower on that scale, so bring them to your clinician as questions, not as facts.

Take these to your clinician

- An honest account of your use: frequency, how long, amounts, what you believe you were taking, any bad reactions or overheating, and other substances, including alcohol and stimulants.
- Every medication and supplement you take, especially any SSRI, SNRI, MAOI, tramadol, or triptan, so serotonin-syndrome risk can be checked, and before any 5-HTP.
- Any history of depression or suicidal thoughts, and a request for a psychiatric plan before or right after you stop.
- Your CYP2D6, SLC6A4, MTHFR, and TPH2 results, and a request to assess MTHFR before any new SSRI trial.
- Questions about social anxiety, PTSD, and ADHD treatment, and, if you are interested in therapeutic MDMA, a referral to an addiction psychiatrist who will coordinate with a therapy team.